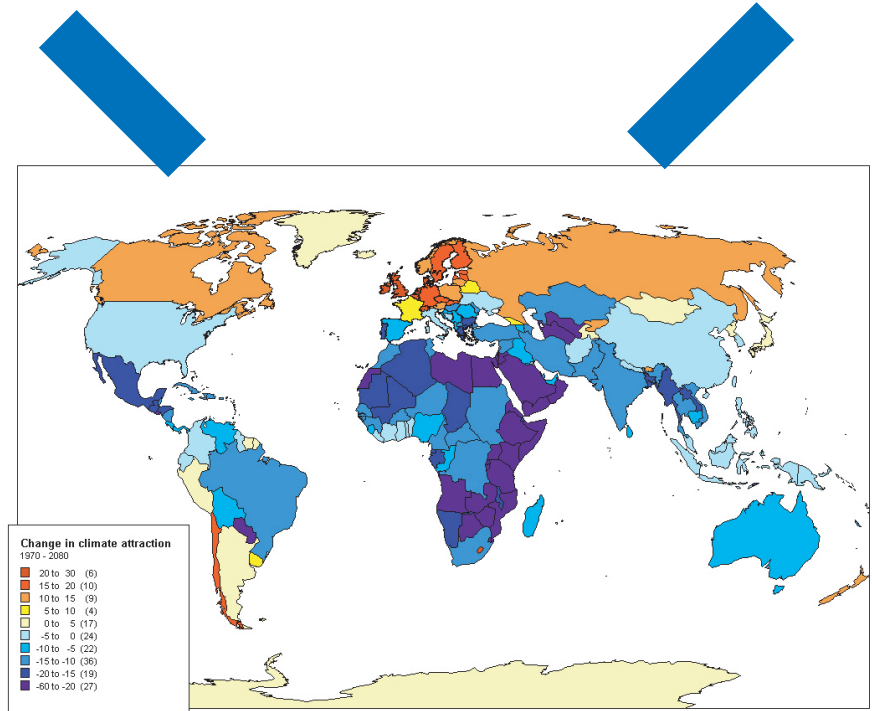
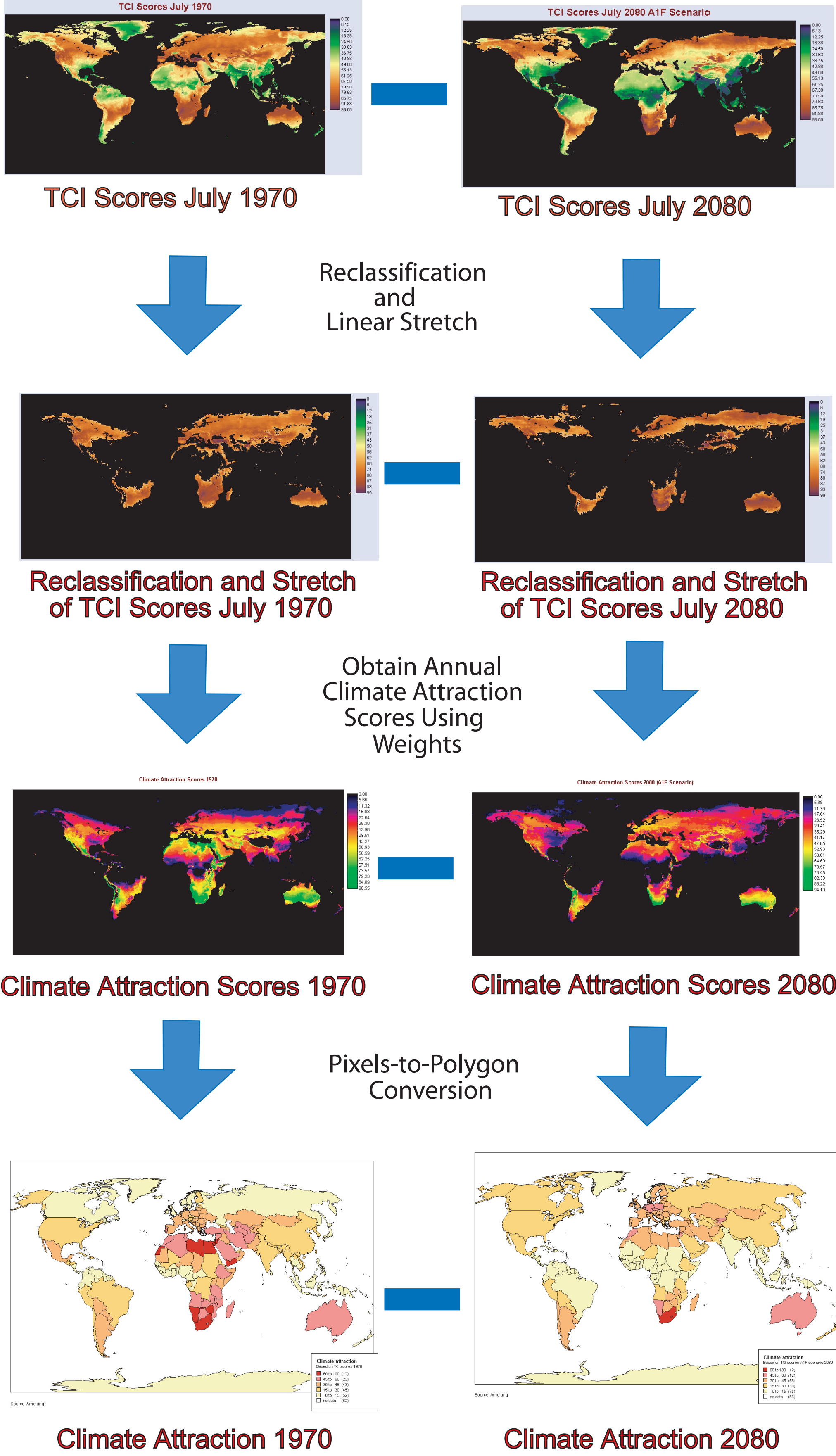


A Trip Destination Model for Estimating the Effect of Climate Change on Tourist Arrivals

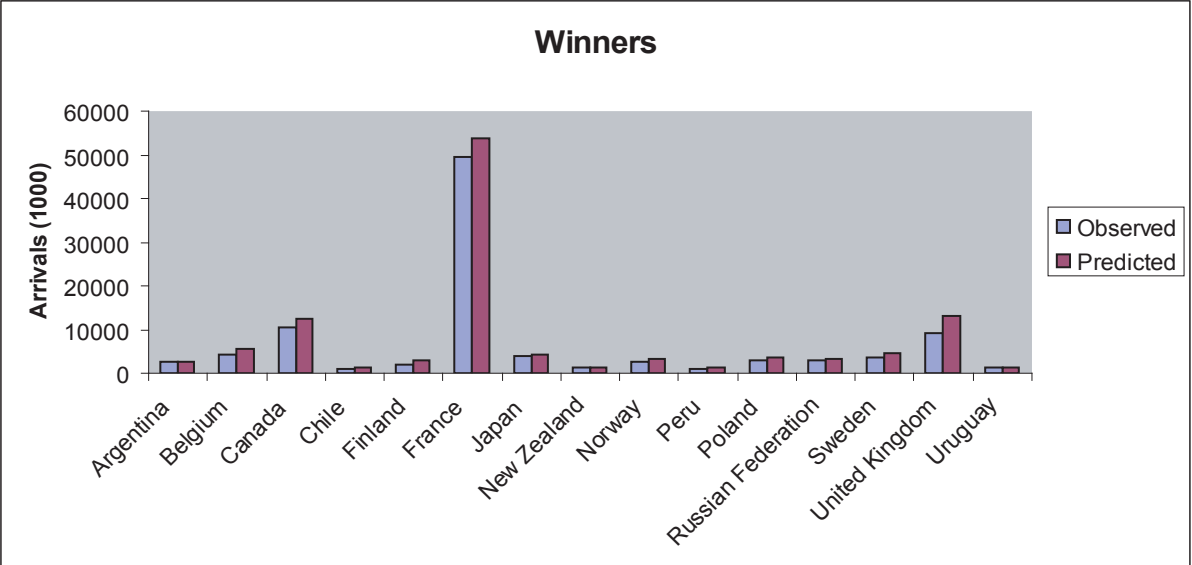
Martin Landré

Centre for Sustainable Tourism and Transport
NHTV Breda University of Applied Sciences

Data Analysis



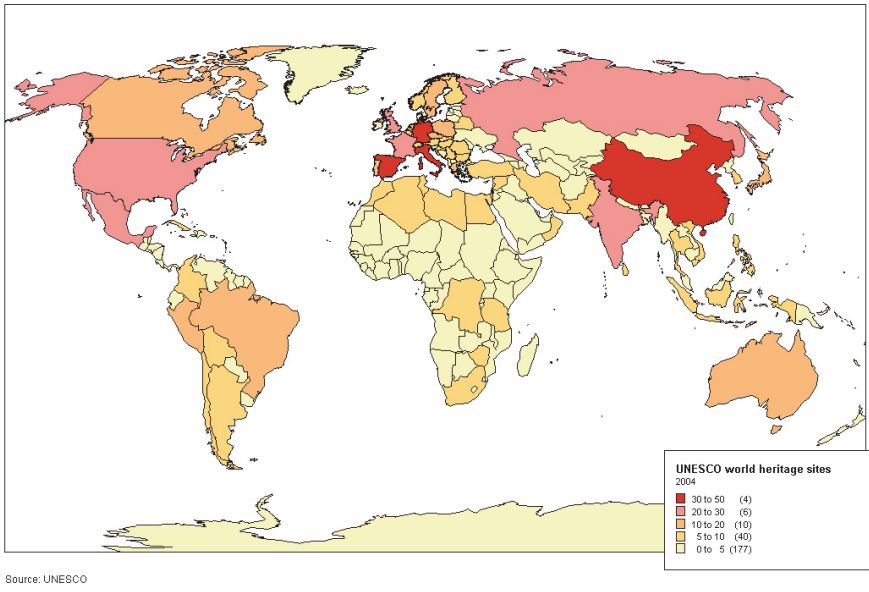
Change in Climate Attraction



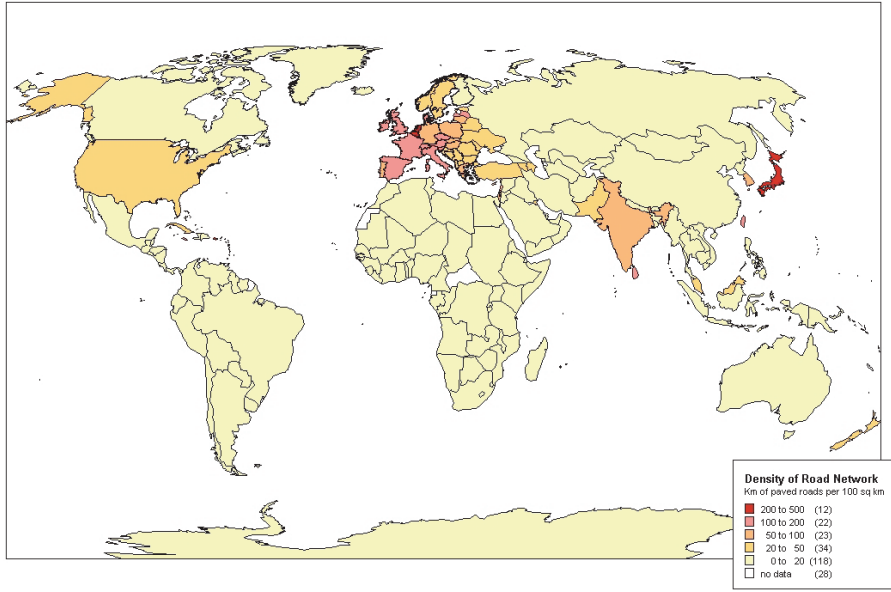
Trip Destination Model

Poisson Regression Model
(with Overdispersion Correction)

Independent Variables



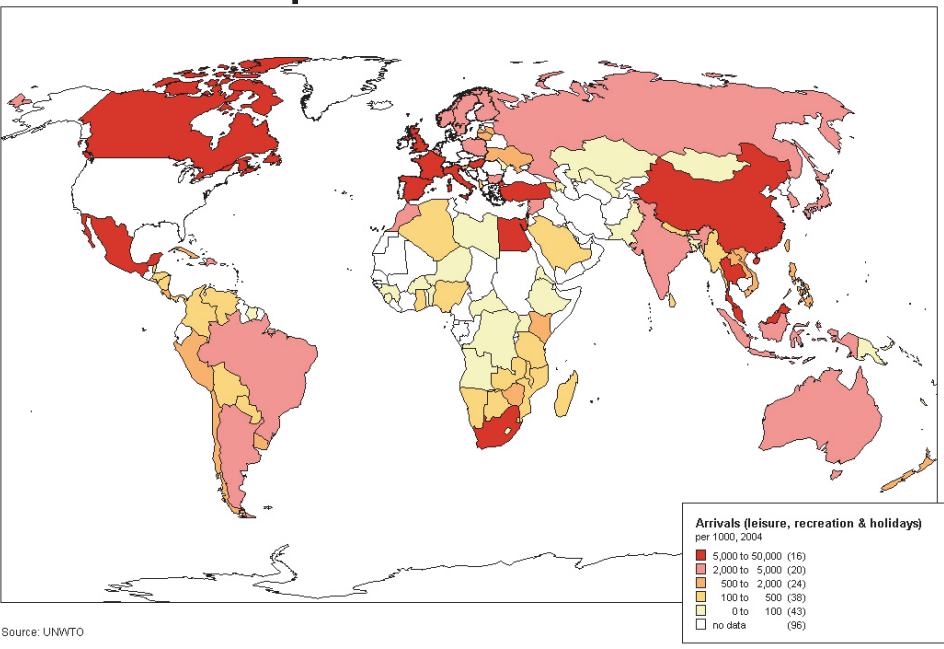
UNESCO World Heritage Sites



Density of Road Network

Climate Attraction 1970

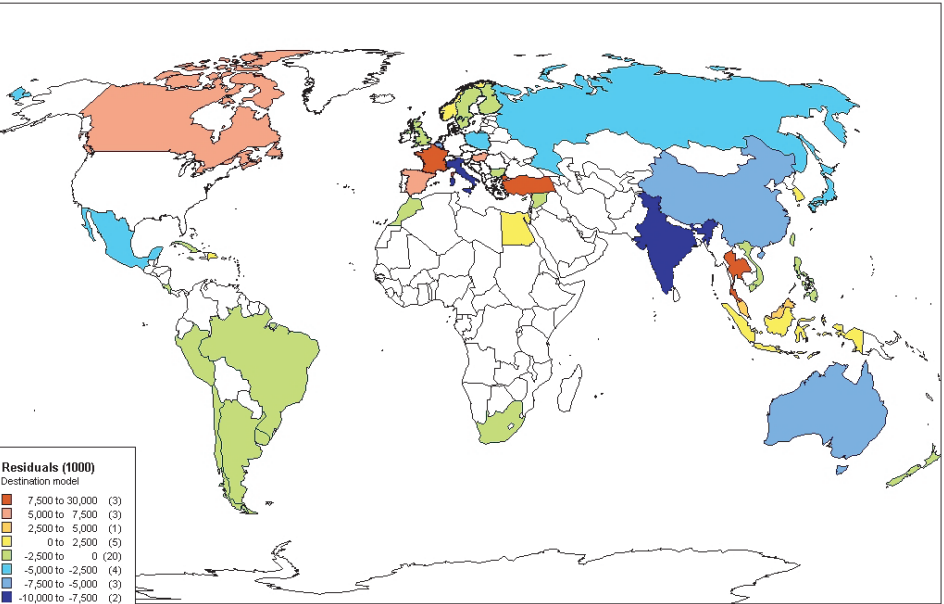
Dependent Variable



Arrivals Leisure, Recreation and Holidays

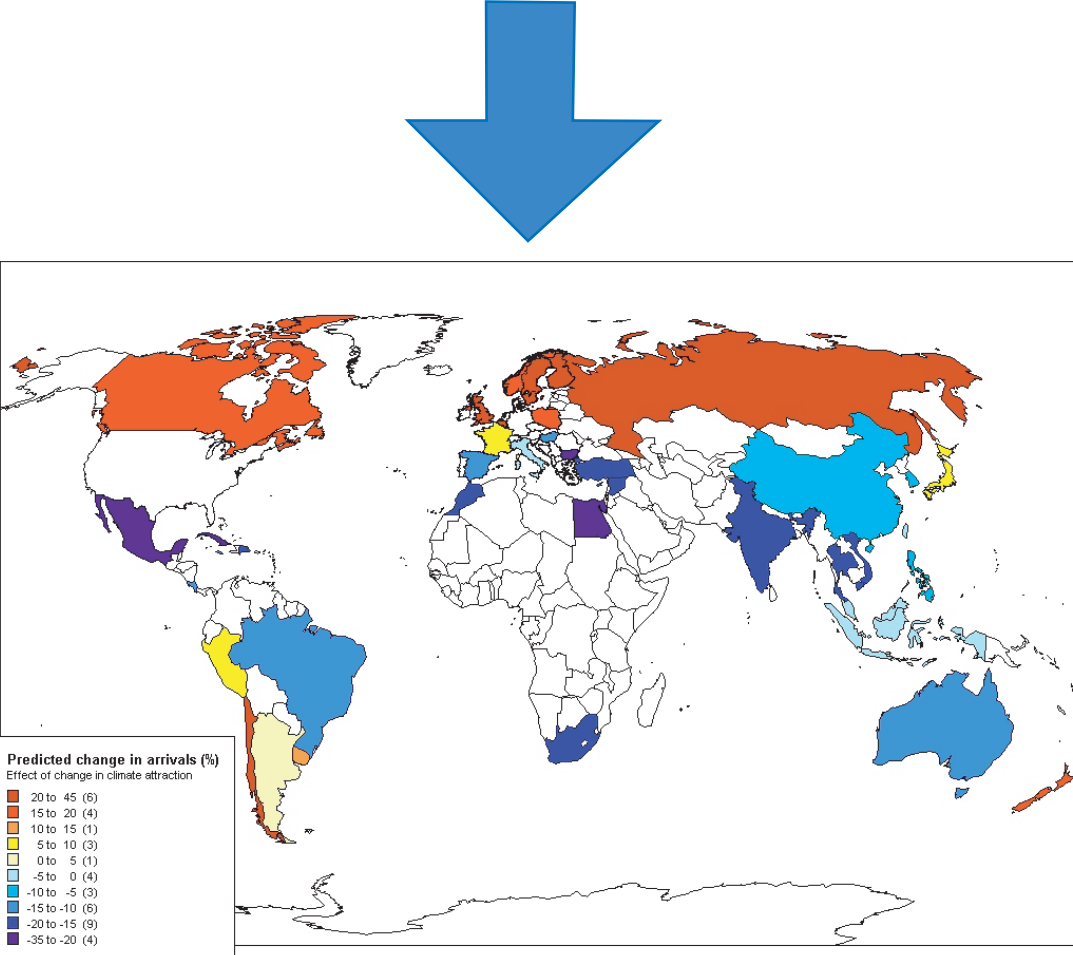
$$Y = 7.210 + 0.016 X_1 + 0.065 X_2 + 0.003 X_3$$

where X_1 = climate attraction, X_2 = heritage sites
 X_3 = road density $R^2 = 0.62$



Residuals

Run Model with Climate Attraction 2080
Replacing Climate Attraction 1970
as Independent Variable



Predicted Change in Arrivals

- Predicted change = regression results using 1970 climate attraction - regression results using 2080 climate attraction
- Percentage change = (predicted change / regression results using 1970 climate attraction) x 100
- Predicted arrivals = observed arrivals + (predicted change / regression results using 1970 climate attraction) x observed arrivals

